

ABSTRACT OF THE DISCLOSURE

A distributed address database management technique involves maintaining an address database by each of a number of interconnected modules. Each module maintains a number of locally owned address entries and a number of remotely owned address entries in the address database. Each module monitors the status of its locally owned address entries, maintains the locally owned address entries based upon the status, and provides the status to the other interconnected modules. Each module maintains the remotely owned address entries based upon the status received from the other interconnected modules. When a module adds a locally owned address entry to its address database, the module notifies the other interconnected modules, which in turn add a corresponding remotely owned address entry to their respective address databases. When a module purges a locally owned address entry from its address database, the module notifies the other interconnected modules, which in turn purge the corresponding remotely owned address entries from their respective address databases. Each module may periodically send a keep-alive message including a list of active addresses to the other interconnected modules, which maintain a persistence timer for each of the remotely owned address entries and purge a particular remotely owned address entry if the corresponding persistence timer expires before receiving a keep-alive message identifying the remotely owned address entry as an active remotely owned address entry. Upon receiving a keep-alive message, a module adds a remotely owned address entry for a particular address to its address database if such a remotely owned address entry is not already maintained in the address database. A module purges all remotely owned address entries from its address database if the module is reconfigured to operate in a stand-alone mode. A module purges all remotely owned address entries associated with a particular interconnected module if that particular interconnected module is removed.